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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/779,804	02/18/2004	Jianhua Huang	01640396AA	6824

30743 7590 02/23/2007  
WHITHAM, CURTIS & CHRISTOFFERSON & COOK, P.C.  
11491 SUNSET HILLS ROAD  
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RESTON, VA 20190

EXAMINER
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SANDERS, KRIELLION ANTIONETTE

ART UNIT	PAPER NUMBER
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1714

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	02/23/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

## Office Action Summary

Application No.

10/779,804

Applicant(s)

HUANG ET AL.

Examiner

Sandra K. Poulos

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 27 November 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 10-22 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 10-22 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

### DETAILED ACTION

1. All outstanding rejections and objections except for those described below are overcome by applicant's amendment filed 11/27/06.

The new grounds of rejection set forth below are necessitated by applicant's amendment filed 11/27/06. In particular, claim 10 has been amended such that the method of forming now includes a wet-lay process. Additionally, new claims 21 and 22 have been introduced which limit the amount of graphite. Thus the following action is properly made **FINAL**.

### *Double Patenting*

2. Claims 10-22 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-2, 4-9, 12-13 of copending Application No. 11/244,401 (published as US 2006/0084750).

The rejection is adequately set forth in paragraph 3 of Office action mailed 8/28/06 and is incorporated herein by reference.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Applicant's statement on page 5 of the amendment filed 11/27/06 regarding the provisional obviousness-type double patenting rejection is acknowledged. If the following double-patenting rejection is the only rejection remaining in this application and if there is a provisional obviousness-type double patenting rejection in the later-filed copending application, per USPTO practice, the examiner will withdraw the rejection.

***Claim Rejections - 35 USC § 103***

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

3. Claims 10-19 and 21-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Balko (US 4,339,322) in view of Tucker (US 5,614,312).

The rejection is adequately set forth in paragraph 6 of Office action mailed 8/28/06 and is incorporated herein by reference.

4. Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Balko and Tucker as applied to claims 10-19 and 21-22 above, and further in view of Niu (US 2003/0089890).

The rejection is adequately set forth in paragraph 7 of Office action mailed 8/28/06 and is incorporated herein by reference.

***Response to Arguments***

5. The rejection regarding Butler (US 6,752,937) has been withdrawn in view of the amendment to include the wet-lay process in the independent claim.

Applicant's arguments filed 11/27/06 have been fully considered but they are not persuasive.

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In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., low gas permeability, low cost, etc) are not recited in the rejected claim(s).

Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Applicant argues that the combination is not obvious and beyond a person of ordinary skill in the art. Balko discloses bipolar plates that comprise conductive graphite particles, reinforcing fibers, and thermoplastic binder. The composition is blended and and compression molded. The bipolar plates are in the form of stacks. Tucker discloses compression molded thermally and electrically conductive plaques made from thermoplastic polymer, graphite particles and reinforcing fibers. The wet laid sheet materials are stacked together to produce a thickness suitable for compression molding to form the plaques which result in excellent conductivity. Although Tucker does not explicitly disclose bipolar plates, he discloses that the wet-laid sheet material is generally useful in forming molded composite parts for use in applications requiring thermally and electrically conductive materials. Since the bipolar plates of Balko are electrically conductive materials that are formed into molded composite parts and because the references have the same general components included in the compositions, and both methods involve compression molding and stacking of the plates, it is deemed analogous. Given that the objective of the Balko reference is to provide plates with good conductivity and

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Applicant argues that there is insufficient motivation to combine the references. The Balko reference is concerned with increasing conductivity in bipolar plates and the Tucker reference is also drawn to increasing conductivity of plates that are used for electrical purposes. One of ordinary skill in the art would recognize that since Balko discloses the importance of good conductivity, it would have been obvious to apply the wet lay process of Tucker in order to maximize this beneficial property.

### ***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sandra K. Poulos whose telephone number is (571) 272-6428. The examiner can normally be reached on M-F 8:00-4:30 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on (571) 272-1119. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

*SKP*

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